

Amendments to the Claims

The following is a complete listing of the claims that replaces all previous versions:

Claims 1-67 cancelled.

68. (Currently Amended) A polymerization process, comprising:

initiating a first polymerization of monomers using an
multifunctional initiator, wherein the multifunctional initiator comprises
~~functionalized with an ATRP initiating-initiator~~ site and a second ~~initiation~~
initiator site ~~for~~ initiating the first polymerization and the first polymerization is
selected from the group of cationic polymerization, anionic polymerization,
conventional free radical polymerization, metathesis, ring opening
polymerization, cationic ring opening polymerization, and coordination
polymerization to form a macroinitiator comprising an ATRP initiating site; and

initiating an ATRP polymerization of radically polymerizable
monomers using the macroinitiator comprising an ATRP ~~initiating-initiator~~ site.

69. (Currently Amended) The polymerization process of claim 68, wherein the
first polymerization of monomers is a conventional radical polymerization and
the multifunctional initiator ~~functionalized with an ATRP initiating site~~ is at
least one of functionalized azo compounds and peroxides.

70. (Currently Amended) The polymerization process of claim 68, wherein
the first polymerization of monomers is a one of a cationic polymerization,
anionic polymerization and a conventional radical polymerization and the
multifunctional initiator ~~functionalized with an ATRP initiating site~~ is a
functionalized transfer agent.

71. (Previously Presented) The polymerization process of claim 68, wherein the first polymerization of monomers is a cationic ring opening polymerization and the multifunctional initiator is one of a 2-halopropionyl halide/silver and 2-haloisobutyronyl halide/silver salt.

72. (Previously Presented) The polymerization process of claim 71, wherein the multifunctional initiator is 2-bromopropionyl bromide/silver triflate.

73. (Previously Presented) The polymerization process of claim 68, wherein the first polymerization of monomers is one of a cationic polymerization and ring opening polymerization and the multifunctional initiator one of a 2-halopropionyl halide and 2-haloisobutyronyl halide.

74. (Previously Presented) The polymerization process of claim 73, wherein the multifunctional initiator is 2-bromopropionyl bromide.

75. (Previously Presented) The polymerization process of claim 68, wherein the first polymerization of monomers is a conventional radical polymerization and the multifunctional initiator is at least one of halogenated AIBN derivatives and halogenated peroxide derivatives.

76. (Previously Presented) The polymerization process of claim 68, wherein the first polymerization of monomers is an anionic polymerization and the multifunctional initiator comprises hydroxy functionality.

77. (Previously Presented) The polymerization process of claim 76, wherein the multifunctional initiator is 2-hydroxyethyl 2-bromopropionate.

78. (Original) A polymerization process, comprising:

initiating a first polymerization of monomers using an initiator,
wherein the first polymerization is selected from the group of cationic

polymerization, anionic polymerization, conventional free radical polymerization, metathesis, ring opening polymerization, cationic ring opening polymerization, and coordination polymerization to form a macromolecule;

quenching the first polymerization with a compound comprising an ATRP initiating site to form a macroinitiator comprising the macromolecule and an ATRP initiating site; and

initiating an ATRP polymerization using the macroinitiator comprising an ATRP initiating site.

79. (Original) The polymerization process of claim 78, wherein the first polymerization of monomers is a ring opening polymerization of cyclic hexamethylcyclotrisiloxane and the macro initiates comprising an ATRP initiating site is 4-(chlorodimethylsilylethyl)styrene.

80. (Original) The polymerization process of claim 78, wherein the macromolecule is a polyphosphazene.

81. (Previously Presented) A polymerization process, comprising:

initiating a first polymerization of monomers using an initiator functionalized with an ATRP initiating site to form a macroinitiator comprising an ATRP initiating site; and

initiating an ATRP polymerization of radically polymerizable monomers using the macroinitiator comprising an ATRP initiating site, wherein the first polymerization of monomers is a conventional radical polymerization and the initiator functionalized with an ATRP initiating site is at least one of functionalized azo compounds and peroxides.

82. (Previously Presented) A polymerization process, comprising:

initiating a first polymerization of monomers using an initiator functionalized with an ATRP initiating site to form a macroinitiator comprising an ATRP initiating site; and

initiating an ATRP polymerization of radically polymerizable monomers using the macroinitiator comprising an ATRP initiating site, wherein the first polymerization of monomers is a cationic ring opening polymerization and the initiator functionalized with an ATRP initiating site is one of a 2-halopropionyl halide/silver and 2-haloisobutyronyl halide/silver salt.

83. (Previously Presented) The polymerization process of claim 82, wherein the initiator functionalized with an ATRP initiating site is 2-bromopropionyl bromide/silver triflate.

84. (Previously Presented) A polymerization process, comprising:

initiating a first polymerization of monomers using an initiator functionalized with an ATRP initiating site to form a macroinitiator comprising an ATRP initiating site; and

initiating an ATRP polymerization of radically polymerizable monomers using the macroinitiator comprising an ATRP initiating site, wherein the first polymerization of monomers is a conventional radical polymerization and the initiator functionalized with an ATRP initiating site is at least one of halogenated AIBN derivatives and halogenated peroxide derivatives.

85. (Previously Presented) A polymerization process, comprising:

initiating a first polymerization of monomers using an initiator functionalized with an ATRP initiating site to form a macroinitiator comprising an ATRP initiating site; and

initiating an ATRP polymerization of radically polymerizable monomers using the macroinitiator comprising an ATRP initiating site., wherein the first polymerization of monomers is an anionic polymerization and the initiator functionalized with an ATRP initiating site comprises hydroxy functionality.

86. (Previously Presented) The polymerization process of claim 85, wherein the initiator functionalized with an ATRP initiating site is 2-hydroxyethyl 2-bromopropionate.

claims 68-71 and 75, and 76 stand rejected under 35 U.S.C. §112 as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. Applicant appreciates the Examiner's courtesies extended during the telephone interview on September 23, 2005 and his comments on proposed amendments to overcome the rejection.

Applicant herein amends the claim to clarify the claim scope without narrowing it. The claim is intended to cover initiators having two distinct reactive initiator sites. Claim 68 has been amended to include the limitation wherein the multifunctional initiator comprises an ATRP initiator site and a second initiator site initiating a first polymerization to clarify the claim.

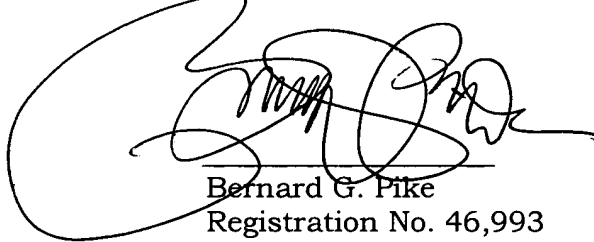
Double Patenting

Applicant herein asserts that the inventions as claimed in United States Patent Nos. 5,945,491 and 5,807,937 and the subject application were commonly owned at the time the invention was made, at the time the subject application was filed and have still commonly owned at this time.

Conclusion

Applicant has made a diligent effort to fully respond to all of the concerns and comments of the Examiner. Therefore, Applicant respectfully requests that a timely Notice of Allowance be issued in the subject application. If the Examiner has any concerns regarding Applicant's present response, he is invited to contact Applicant's undersigned representative at the telephone number listed below so that those concerns may be expeditiously addressed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Bernard G. Pike', is written over a horizontal line. The signature is stylized with large loops and a long horizontal stroke extending to the right.

Bernard G. Pike
Registration No. 46,993
Attorney for Applicants

KIRKPATRICK & LOCKHART NICHOLSON GRAHAM LLP
Henry W. Oliver Building
535 Smithfield Street
Pittsburgh, PA 15222-2312

Telephone: (412) 355-8620
Facsimile: (412) 355-6501